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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,920	08/07/2001	Peter Robert Foley	7942	1888

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EXAMINER	
KUMAR, PREETI	

ART UNIT	PAPER NUMBER
1751	7

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/890,920	Applicant(s) FOLEY, PETER ROBERT	
	Examiner Preeti Kumar	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 January 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-13 and 15-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-13 and 15-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 11-13 and 15-26 are pending.

2. The objection to the disclosure is withdrawn in light of applicant's amendment to the specification.

3. The rejection of claims 12, 13, and 17 under 35 U.S.C. 112, second paragraph, is withdrawn in light of applicant's amendment to the claims.

4. Claims 11-13 and 15-24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Vinson et al. (US 6,069,122) is withdrawn in light of applicant's amendment.

5. The indicated allowability of claims 14 and 25 is withdrawn upon further consideration of the prior art.

6. The rejection of claims 11-13 and 15-26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Boskamp (US 4,462,922) is maintained upon further consideration of the prior art and is described below.

Specifically regarding the amine oxide, Boskamp teach examples of nonionic synthetic detergents are the condensation products of ethylene oxide, propylene oxide and/or butyleneoxide with C_8 -C_{18} alkylphenols, C_8 -C_{18} primary or secondary aliphatic alcohols, C_8 -C_{18} fatty acid amides; further examples of nonionics include tertiary amine oxides with one C_8 -C_{18} alkyl chain and two C_1-C_3 alkyl chains. See col.3, ln.58-65.

Thus, the teachings of Boskamp are sufficient to anticipate the material limitations of the instant claims.

Alternatively, even if the broad teachings of Boskamp are not sufficient to anticipate the material limitations of the instant claims, it would have been obvious, to one of ordinary skill in the art, at the time the invention was made to formulate a liquid dishwashing detergent composition comprising the specific amine oxide as recited by the instant claims, with a reasonable expectation of success, because the teachings of Boskamp suggest a liquid detergent composition comprising an antioxidant, a chelant, surfactant and tertiary amine oxides with one C_8 -C_{18} alkyl chain and two C_1-C_3 alkyl chains in general.

New Grounds of Rejection

7. Claims 11-13 and 15-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vinson et al. (US 6,069,122).

Vinson et al. teach a liquid dishwashing detergent comprising one or more detersive adjuncts selected from the following: soil release polymers, dispersants, polysaccharides, abrasives, bactericides, tarnish inhibitors, builders, enzymes, dyes, buffers, antifungal or mildew control agents, insect repellents, perfumes, hydrotropes, thickeners, processing aids, suds boosters, brighteners, anti-corrosive aids, stabilizers antioxidants and chelants. Moreover, the hand dishwashing detergent composition of this invention can further comprise enzymes preferably selected from the group consisting of protease, lipase, amylase, cellulase, and mixtures thereof; more preferably the enzymes are selected from protease and amylase.

Additionally, that the amine oxide or surfactant should be hydrogen peroxide-free. The preferred level of hydrogen peroxide in the amine oxide or surfactant paste of

amine oxide is 0-40 ppm, more preferably 0-15 ppm. Making the compositions free of hydrogen peroxide is important when the compositions contain an enzyme. The peroxide can react with the enzyme and destroy any performance benefits the enzyme adds to the composition. However, the diamine can react with any peroxide present and act as an enzyme stabilizer and prevent the hydrogen peroxide from reacting with the enzyme. Having the diamine act as an enzyme stabilizer also prevents the diamine from providing the benefits to the composition for which it was originally put in to perform, namely, grease cleaning, sudsing, dissolution and low temperature stability. The use of stabilizers such as antioxidants and chelants inhibit and/or prevent the formation of H2O2 impurities in the composition from the time of preparation to ultimate use by he consumer and beyond. See col.3, ln.35-col.4,ln.35.

Specifically regarding the amine oxide, Vinson et al. teach semi-polar nonionic surfactants are a special category of nonionic surfactants which include water-soluble amine oxides containing one alkyl moiety of from about 10 to about 18 carbon atoms and 2 moieties selected from the group consisting of alkyl groups and hydroxyalkyl groups containing from about 1 to about 3 carbon atoms; water-soluble phosphine oxides containing one alkyl moiety of from about 10 to about 18 carbon atoms and 2 moieties selected from the group consisting of alkyl groups and hydroxyalkyl groups containing from about 1 to about 3 carbon atoms; and water-soluble sulfoxides containing one alkyl moiety of from about 10 to about 18 carbon atoms and a moiety selected from the group consisting of alkyl and hydroxyalkyl moieties of from about 1 to about 3 carbon atoms. See col.10, ln.66-col.11, ln.13.

Specifically regarding claims 12 and 16, Vinson et al. teach that the nonionic surfactants are selected from the group consisting of amine oxide, alkyl dialkyl amine oxide, alkyl ethoxylate, alkanoyl glucose amide, the so-called narrow peaked alkyl ethoxylates, C6-C12 alkyl phenol alkoxylates (especially ethoxylates and mixed ethoxy/propoxy), alkanoyl glucose amide, and mixtures thereof. See col.9, ln. 50-60. If a mixture of anionic surfactant and nonionic surfactant is used, the weight ratio of anionic:nonionic is preferably from about 50:1 to about 1:50, more preferably from about 50:1 to about 3:1. Also, when mixtures of anionic and nonionic surfactants are present, the hand dishwashing detergent composition herein preferably further comprise protease enzyme, amylase enzyme, or mixtures thereof. See col.3,ln.5-20.

Specifically regarding claims 19-23, Vinson et al. teach dishwashing compositions are subjected to acidic stresses created by food soils when put to use, i.e., diluted and applied to soiled dishes. If a composition with a pH greater than 7 is to be more effective, it preferably should contain a buffering agent capable of providing a generally more alkaline pH in the composition and in dilute solutions, i.e., about 0.1% to 0.4% by weight aqueous solution, of the composition. The buffering agent may be an active detergent in its own right, or it may be a low molecular weight, organic or inorganic material that is used in this composition solely for maintaining an alkaline pH. Preferred buffering agents are nitrogen-containing buffering agents such as Tri(hydroxymethyl)amino methane (HOCH2)3 CNH3 (TRIS), 2-amino-2-ethyl-1,3-propanediol, 2-amino-2-methyl-propanol, 2-amino-2-methyl- 1,3 -propanol, disodium glutamate, N-methyl diethanolamide, 1,3-diamino-propanol N,N'-tetra-methyl-1,3-

diamino-2-propanol, N,N-bis(2-hydroxyethyl)glycine (bicine) and N-tris (hydroxymethyl)methyl glycine (tricine). Useful inorganic buffers/alkalinity sources include the alkali metal carbonates and alkali metal phosphates, e.g., sodium carbonate, sodium polyphosphate. The buffering agent, if used, is present in the compositions of the invention herein at a level of from about 0.1% to 15%, preferably from about 1% to 10%, most preferably from about 2% to 8%, by weight of the composition. See col.26, ln.10-55.

Vinson et al. teach a liquid detergent composition comprising amine oxide, enzymes, and magnesium and calcium, in example II in col.29.

However, Vinson et al. do not specifically teach a process for making a liquid detergent composition comprising the specific amine oxide as recited by the formula in instant claim 11.

It would have been obvious, to one of ordinary skill in the art at the time the invention was made, to formulate a liquid detergent composition comprising the specific amine oxide as recited by the instant claims, with a reasonable expectation of success, because the teachings of Vinson et al. suggest a liquid detergent composition comprising water-soluble amine oxides containing one alkyl moiety of from about 10 to about 18 carbon atoms and 2 moieties selected from the group consisting of alkyl groups and hydroxyalkyl groups containing from about 1 to about 3 carbon atoms in general.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 703-305-0178. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 703-308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-872-9309.

Preeti Kumar
Examiner
Art Unit 1751

YOGENDRA N. GUPTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

PK
April 5, 2003